

13. A nucleic acid fragment comprising a sequence encoding a plant lysophosphatidic acid acyltransferase (LPAAT), the peptide sequence of which exhibits at least 20% identity with the peptide sequence SEQ ID NO: 2.

14. A nucleic acid fragment comprising a sequence that is complementary to the coding sequence of claim 13.

15. The nucleic acid fragment of claim 13, wherein said coding sequence encodes the polypeptide of sequence SEQ ID NO: 2.

16. A nucleic acid fragment comprising at least 20 base pairs, which is capable of hybridizing specifically, under stringent conditions, with a sequence as defined in any one of claims 13, with the exception of the fragments consisting of an oligonucleotide encoding one of the following peptide sequences:

FPEGTRS;

PFKKGA;

or of the sequence complementary thereto.

17. A recombinant vector containing a nucleic acid fragment as claimed in any one of claims 13 -16.

18. A cell transformed with at least one nucleic acid fragment as claimed in any one of claims 13 -16.

19. The transformed cell as claimed in claim 18, wherein the cell is a plant cell.
20. A transgenic plant transformed with at least one nucleic acid fragment as claimed in any one of claims 13 -16.
21. A method of regulating the LPAAT activity of a plant comprising transforming a plant with at least one nucleic acid fragment as claimed in any one of claims 13 -16.
22. The method of claim 21 wherein the plant is rapeseed.
23. The method as claimed in either claim 21 wherein said nucleic acid is present in the cells of the transformed plant in an antisense orientation.
24. The method as claimed in either claim 21 wherein said nucleic acid is present in the transformed cell in a sense orientation and the transformed plant expresses functional LPAAT.
25. The method of claim 24 wherein said functional LPAAT does not include a signal peptide capable of importing the LPAAT into the membrane of the chloroplasts.

045636-5046